What is claimed is:

1. A holographic apparatus comprising:

a mask for modulating a signal beam to generate a modulated signal beam;

a conical prism, which includes a cone portion and a base portion, for refracting a reference beam to generate a refracted reference beam, wherein the refracted reference beam interferes with the modulated signal beam in a holographic medium to thereby record data thereon, the base portion facing the holographic medium.

2. The apparatus of claim 1, wherein an optical path of the refracted reference beam depends on a refractive index of the conical prism.

3. The apparatus of claim 1, wherein the conical prism is replaced with another one having a different base angle for multiplexing.

4. The apparatus of claim 1, wherein an optical path of the refracted reference beam is controlled by the following relationship of:

$$\sin^{-1}\left[n\sin\{a - \sin^{-1}(\sin a/n)\}\right] = d,$$

wherein '*n*' is an index of refraction of the medium of the conical prism, '*a*' indicates the base angle of the conical prism, and '*d*' is an angle of incidence on the holographic medium.

5. The apparatus of claim 4, wherein the angle '*d*' satisfies the relationship of:

$$X2 = X1/\cos d > X3,$$

wherein 'X1' is one-half of the full size of the reference beam which is projected onto the conical prism, 'X2' is a beam size of the refracted reference beam at the base portion of the conical prism, and 'X3' is one-half of the difference between the outer and the inner diameters of the recording region of the holographic medium.

6. The apparatus of claim 1, wherein a distance between the conical prism and the holographic medium is varied for multiplexing.

7. The apparatus of claim 6, wherein the distance is determined by the formula of:

$$\tan d = X2/Y,$$

wherein 'd' is an angle of incidence on the holographic medium, 'X2' is a beam size of the refracted reference beam at the base portion of the conical prism, and 'Y' is the distance between the conical prism and the holographic medium.

8. A holographic apparatus comprising:

a light source for emitting a laser beam;

a beam splitter for dividing the laser beam into a reference beam and a signal beam;

a mask for modulating the signal beam to generate a modulated signal beam; and

a refractor for refracting the reference beam to generate a refracted reference beam, wherein the refracted reference beam interferes with the modulated signal beam in the holographic medium to thereby record the data thereon.

9. The apparatus of claim 8, wherein the refractor is a conical prism so that the refracted reference beam is conically dispersed on the holographic medium.

10. A holographic method comprising the steps of:

(a) generating a laser beam;

(b) dividing the laser beam into a reference beam and a signal beam; and

(c) modulating the signal beam to generate a

modulated signal beam and, at the same time, refracting the reference beam to generate a refracted reference beam,

wherein the refracted reference beam interferes with the modulated signal beam in the holographic medium to thereby record the data thereon.